

ABSTRACT

To provide for more natural color matching and color correction, the ratio of the luminance of a pixel before correction to the luminance of the pixel after correction is computed. This ratio is used to scale the saturation of the corrected pixel, without changing its hue. For example, if the
5 pixel is represented by a luminance component and two chrominance components, both of the chrominance components of the corrected pixel are scaled by the ratio. As a result, if the input luminance is lower than the luminance of the corrected pixel, then the saturation of the corrected pixel is reduced. If the input luminance is higher than the luminance of the corrected pixel, then the saturation of the corrected pixel is increased. The input luminance and scaled saturation of the
10 corrected pixel are used to provide the components of an output pixel. As a result, the output pixel has the desired hue with a natural luminance and saturation.